

IN THE CLAIMS

This listing of claims replaces all previous versions of the claims. Please amend the claims as follows:

Claims 1-29 (Canceled).

Claim 30 (New): An isolated or purified compound comprising the following amino acid sequence: X₁X₂X₃X₄X₅X₆, wherein

X₁ is an amino acid other than C (cysteine),

X₂ is an amino acid other than C (cysteine),

X₃ is an amino acid other than C (cysteine),

X₄ is an amino acid other than C (cysteine),

X₅ is an amino acid other than C (cysteine),

X₆ is an amino acid other than C (cysteine), wherein said compound binds to an antibody specific for DAEFRH (SEQ ID NO: 1), but wherein X₁X₂X₃X₄X₆ is not DAEFRH (SEQ ID NO: 1).

Claim 31 (New): The compound of claim 30, wherein

X₁ is an amino acid with a hydroxy group or a negatively charged amino acid,

X₂ is a hydrophobic amino acid or a positively charged amino acid,

X₃ is a negatively charged amino acid,

X₄ is an aromatic amino acid,

X₅ is H, K, Y, F or R, and

X₆ is S, T, N, Q, D, E, R, I, K, Y, or G.

Claim 32 (New): The compound of claim 30, wherein

X₁ is G, E, Y, S or D,

X₂ is I, L, V, K, W, R, Y, F or A,

X₃ is D or E,

X₄ is Y, F or L,

X₅ is H, F or R, and

X₆ is T, N, D, R, I or G.

Claim 33 (New): The compound of claim 30, which comprises a sequence selected from the group consisting of EIDYHR (SEQ ID NO: 91), ELDYHR (SEQ ID NO: 92), EVDYHR (SEQ ID NO: 93), DIDYHR (SEQ ID NO: 94), DLDYHR (SEQ ID NO: 95), DV DYHR (SEQ ID NO: 96), DIDYRR (SEQ ID NO: 97), DLDYRR (SEQ ID NO: 98), DV DYRR (SEQ ID NO: 99), DKELRI (SEQ ID NO: 100), DWELRI (SEQ ID NO: 101), YREFFI (SEQ ID NO: 119), YREFRI (SEQ ID NO: 102), YAEFRG (SEQ ID NO: 103), EAEFRG (SEQ ID NO: 104), DYEFRG (SEQ ID NO: 105), ELEFRG (SEQ ID NO: 106), DRELRI (SEQ ID NO: 107), DKELKI (SEQ ID NO: 108), DRELKI (SEQ ID NO: 109), GREFRN (SEQ ID NO: 110), EYEFRG (SEQ ID NO: 111), DWEFRDA (SEQ ID NO: 112), SWEFRT (SEQ ID NO: 113), DKELR (SEQ ID NO: 114) and SFEFRG (SEQ ID NO: 115).

Claim 34 (New): The compound of claim 30, which consists of 5 to 15 amino acid residues.

Claim 35 (New): The compound of claim 30, further comprising covalently-coupled carrier.

Claim 36 (New): The compound of claim 35, wherein said carrier is a peptide linker or a polypeptide.

Claim 37 (New): The compound of claim 35, wherein said carrier is selected from the group consisting of KLH, tetanus toxoid, albumin binding protein, bovine serum albumin and dendrimer.

Claim 38 (New): A composition comprising the compound of claim 30 and a pharmaceutically acceptable carrier or adjuvant.

Claim 39 (New): The composition of claim 38, which comprises a non-covalently associated peptide linker or protein carrier.

Claim 40 (New): The composition of claim 38, which comprises aluminum hydroxide.

Claim 41 (New): The composition of claim 38, wherein said compound comprises at least one amino acid sequence selected from the group consisting of EIDYHR (SEQ ID NO: 91), ELDYHR (SEQ ID NO: 92), EVDYHR (SEQ ID NO: 93), DIDYHR (SEQ ID NO: 94), DLDYHR (SEQ ID NO: 95), DV DYHR (SEQ ID NO: 96), DIDYRR (SEQ ID NO: 97), DLDYRR (SEQ ID NO: 98), DV DYRR (SEQ ID NO: 99), DKELRI (SEQ ID NO: 100), DWELRI (SEQ ID NO: 101), YREFFI (SEQ ID NO: 119), YREFRI (SEQ ID NO: 102), YAEFRG (SEQ ID NO: 103), EAEFRG (SEQ ID NO: 104), DYEFRG (SEQ ID NO: 105), ELEFRG (SEQ ID NO: 106), DRELRI (SEQ ID NO: 107), DKELKI (SEQ ID NO: 108),

DRELKI (SEQ ID NO: 109), GREFRN (SEQ ID NO: 110), EYEFRG (SEQ ID NO: 111), DWEFRDA (SEQ ID NO: 112), SWEFRT (SEQ ID NO: 113), DKELR (SEQ ID NO: 114) and SFEFRG (SEQ ID NO: 115).

Claim 42 (New): The composition of claim 38, wherein said compound consists of a peptide of 5 to 15 amino acid residues.

Claim 43 (New): The composition of claim 38 which comprises 0.1 ng to 10 mg of said compound.

Claim 44 (New): The composition of claim 38, which comprises 100 ng to 100 µg of said compound.

Claim 45 (New): A method for treating Alzheimer's Disease comprising: administering to a subject in need thereof an effective amount of the compound of claim 30.

Claim 46 (New): The method of claim 45, wherein said compound comprises an amino acid sequence selected from the group consisting of EIDYHR (SEQ ID NO: 91), ELDYHR (SEQ ID NO: 92), EVDYHR (SEQ ID NO: 93), DIDYHR (SEQ ID NO: 94), DLDYHR (SEQ ID NO: 95), DVDYHR (SEQ ID NO: 96), DIDYRR (SEQ ID NO: 97), DLDYRR (SEQ ID NO: 98), DVDYRR (SEQ ID NO: 99), DKELRI (SEQ ID NO: 100), DWELRI (SEQ ID NO: 101), YREFFI (SEQ ID NO: 119), YREFRI (SEQ ID NO: 102), YAEFRG (SEQ ID NO: 103), EAEFRG (SEQ ID NO: 104), DYEFRG (SEQ ID NO: 105), ELEFRG (SEQ ID NO: 106), DRELRI (SEQ ID NO: 107), DKELKI (SEQ ID NO: 108), DRELKI (SEQ ID NO:

109), GREFRN (SEQ ID NO: 110), EYEFRG (SEQ ID NO: 111), DWEFRDA (SEQ ID NO: 112), SWEFRT (SEQ ID NO: 113), DKELR (SEQ ID NO: 114) and SFEFRG (SEQ ID NO: 115).

Claim 47 (New): A method for isolating a compound binding to an antibody specific for the natural N-terminal A942 sequence DAEFRH (SEQ ID NO: 1) comprising: providing a peptide compound library comprising peptides containing the following amino acid sequence

$X_1X_2X_3X_4X_5X_6$, wherein

X_1 is an amino acid other than C (cysteine),

X_2 is an amino acid other than C (cysteine),

X_3 is an amino acid other than C (cysteine),

X_4 is an amino acid other than C (cysteine),

X_5 is an amino acid other than C (cysteine),

X_6 is an amino acid other than C (cysteine),

wherein $X_1X_2X_3X_4X_6$ is not DAEFRH (SEQ ID NO: 1); contacting said peptide library with an antibody which binds to DAEFRH (SEQ ID NO: 1); and isolating those members of the peptide library which bind to said antibody.

Claim 48 (New): The method of claim 47, wherein said peptides are provided in individualized form in said library or are immobilized separately on a solid surface.

Claim 49 (New): The method of claim 27, wherein said antibody comprises a marker which allows its detection or isolation when bound to a peptide in the library.